

FIG. 1

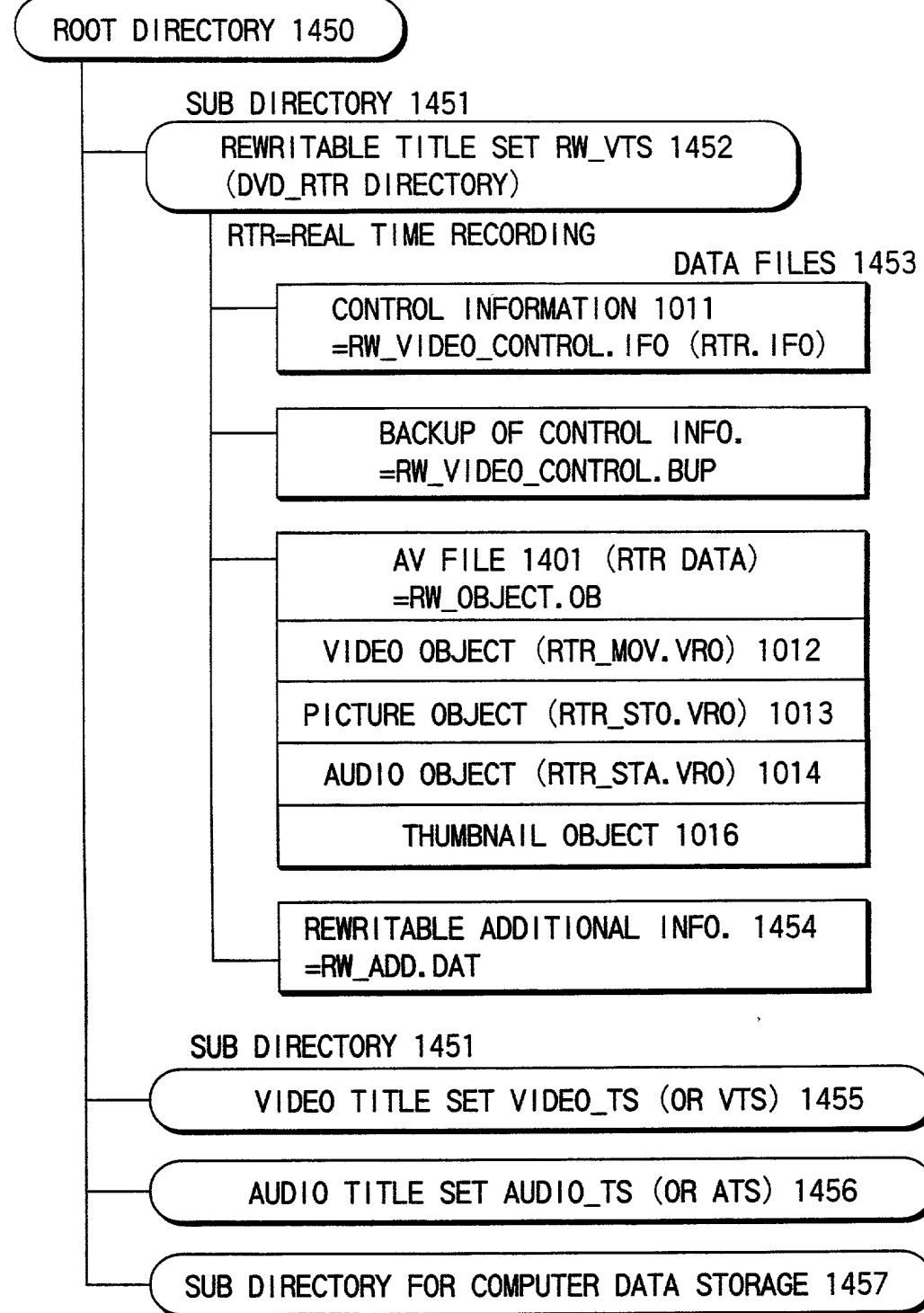


FIG. 2

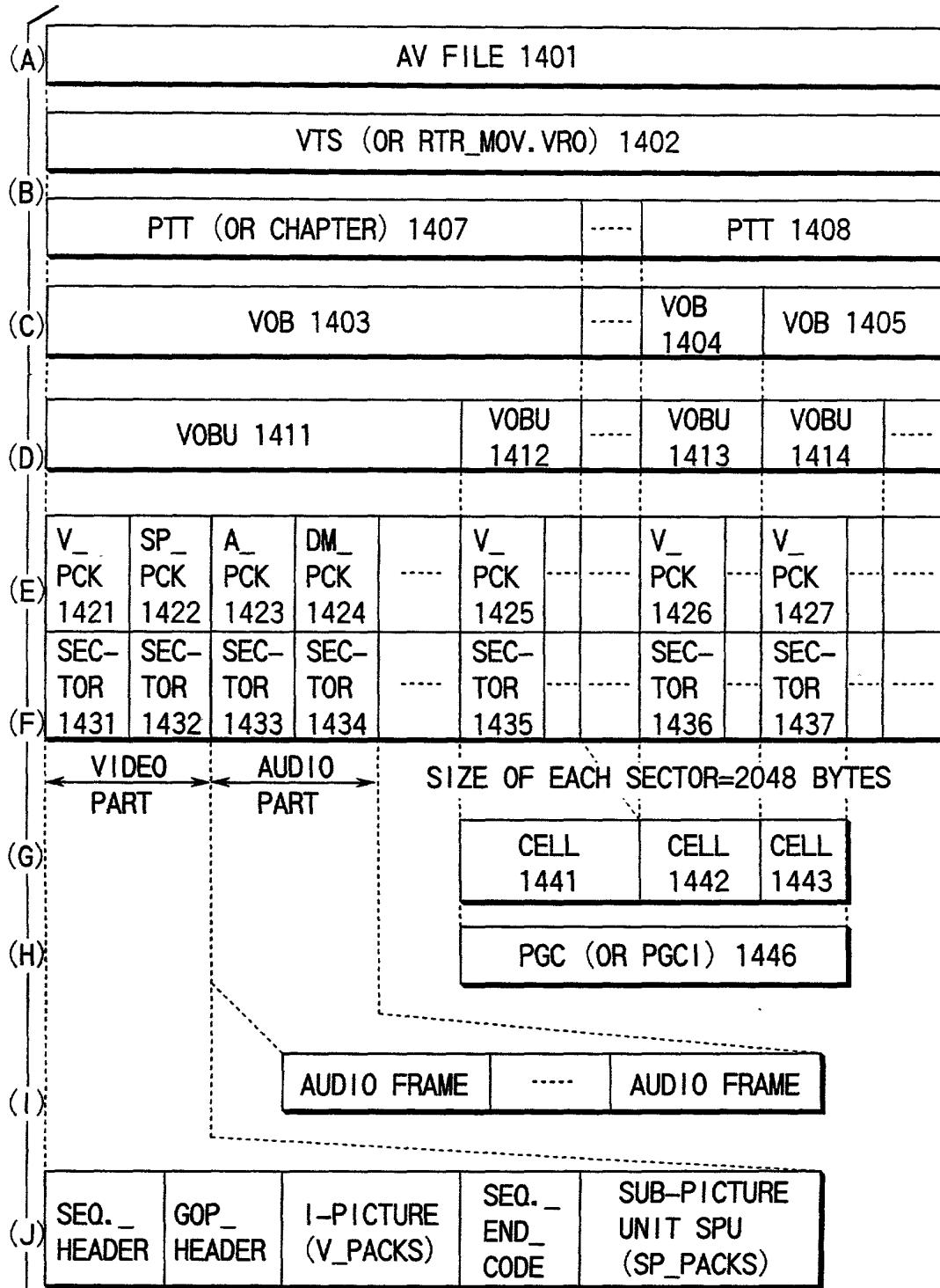


FIG. 3

AV FILE 1401					
VOB #3 (1) 1463	VOB #1 1461	VOB #3 (2) 1464	VOB #2 1462	UNRECORDED AREA 1460	VOB #3 (3) 1465
EXTENT # γ 1473	EXTENT # α 1471	EXTENT # δ 1474	EXTENT # β 1472	EXTENT # ζ 1470	EXTENT # ϵ 1475
					LSNg
				LSNf+1	
				LSNf	
				LSNe+1	
				LSNe	
				LSNd+1	
				LSNd	
				LSNc+1	
				LSNc	
				LSNb+2	
				LSNb+1	
				LSNb	
				LSNa+2	
				LSNa+1	

←SMALLER LOGICAL SECTOR NUMBER (LSN)
 ←INNER SIDE OF OPTICAL DISC 1001

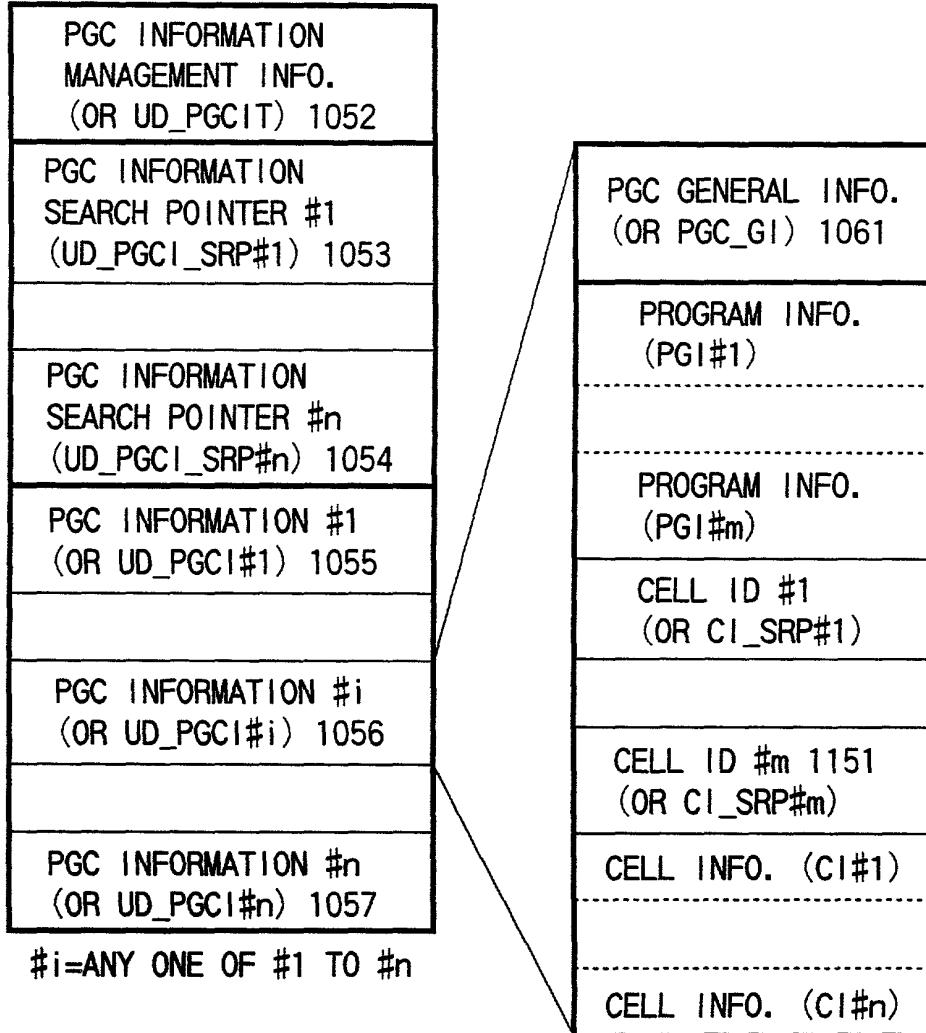
LARGER LOGICAL SECTOR NUMBER (LSN)
 OUTER SIDE OF OPTICAL DISC 1001→

FIG. 4

CONTENTS OF ALLOCATION MAP TABLE 1105	NUMBER OF EXTENTS IN UNRECORDED AREA 1601	1
	1ST ADR. (LSN) OF 1ST EXTENT IN UNRECORDED AREA 1606	e-a
DISTRIBUTION INFORMATION OF POSITIONS OF UNRECORDED AREA 1621	SIZE (SECTORS) OF 1ST EXTENT IN UNRECORDED AREA 1614	f-e
DISTRIBUTION INFORMATION OF POSITIONS OF RECORDED DATA AS TO VOB #1 1622	NUMBER OF EXTENTS IN VOB #1 1602	1
	1ST ADR. (LSN) OF 1ST EXTENT IN VOB #1 1607	b-a
	SIZE (SECTORS) OF 1ST EXTENT IN VOB #1 1615	c-b
DISTRIBUTION INFORMATION OF POSITIONS OF RECORDED DATA AS TO VOB #2 1623	NUMBER OF EXTENTS IN VOB #2 1603	1
	1ST ADR. (LSN) OF 1ST EXTENT IN VOB #2 1608	d-a
	SIZE (SECTORS) OF 1ST EXTENT IN VOB #2 1616	e-d
DISTRIBUTION INFORMATION OF POSITIONS OF RECORDED DATA AS TO VOB #3 1624	NUMBER OF EXTENTS IN VOB #3 1604	3
	1ST ADR. (LSN) OF 1ST EXTENT IN VOB #3 1609	1
	SIZE (SECTORS) OF 1ST EXTENT IN VOB #3 1617	b-a
	1ST ADR. (LSN) OF 2ND EXTENT IN VOB #3 1610	c-a
	SIZE (SECTORS) OF 2ND EXTENT IN VOB #3 1618	d-c
	1ST ADR. (LSN) OF 3RD EXTENT IN VOB #3 1611	f-a
	SIZE (SECTORS) OF 3RD EXTENT IN VOB #3 1619	g-f

FIG. 5

PGC CONTROL INFO. (OR UD_PGCIT) 1103



- *1> PGC INFORMATION (OR UD_PGC1) CAN DEFINE
A GROUP OF ONE OR MORE PROGRAMS;
- *2> EACH PROGRAM CAN BE FORMED OF ONE OR MORE CELLS;
- *3> EACH CELL CAN BE SPECIFIED BY CELL ID (OR CI_SRP);
- *4> EACH CELL ID (OR CI_SRP) CAN INDICATE POSITION
(OR START ADDRESS) OF CELL INFORMATION (OR CI);
- *5> EACH CELL INFORMATION (OR CI) CAN DETERMINE
START TIME AND END TIME OF PRESENTATION OF CELL

FIG.6

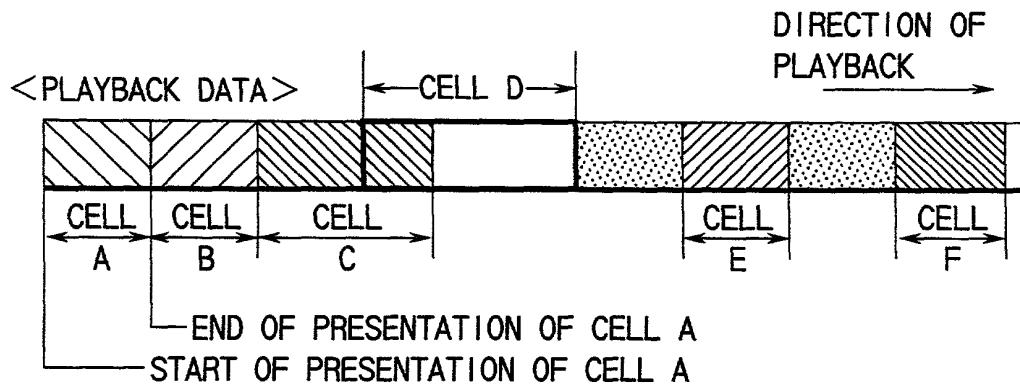


FIG. 7A

PGC INFORMATION (PGCI)

PGC#1 1081		PGC#2 1082		PGC#3 1083	
NUMBER OF CELLS=3		NUMBER OF CELLS=3		NUMBER OF CELLS=5	
#1	CELL A	#1	CELL D	#1	CELL E
#2	CELL B	#2	CELL E	#2	CELL A
#3	CELL C	#3	CELL F	#3	CELL D
—	—	—	—	#4	CELL B
—	—	—	—	#5	CELL E
CELL ID	CELL INFO.	CELL ID	CELL INFO.	CELL ID	CELL INFO.
CI_SRP #m=3	CI #n=3	CI_SRP #m=3	CI #n=3	CI_SRP #m = 5	CI #n=4

FIG. 7B

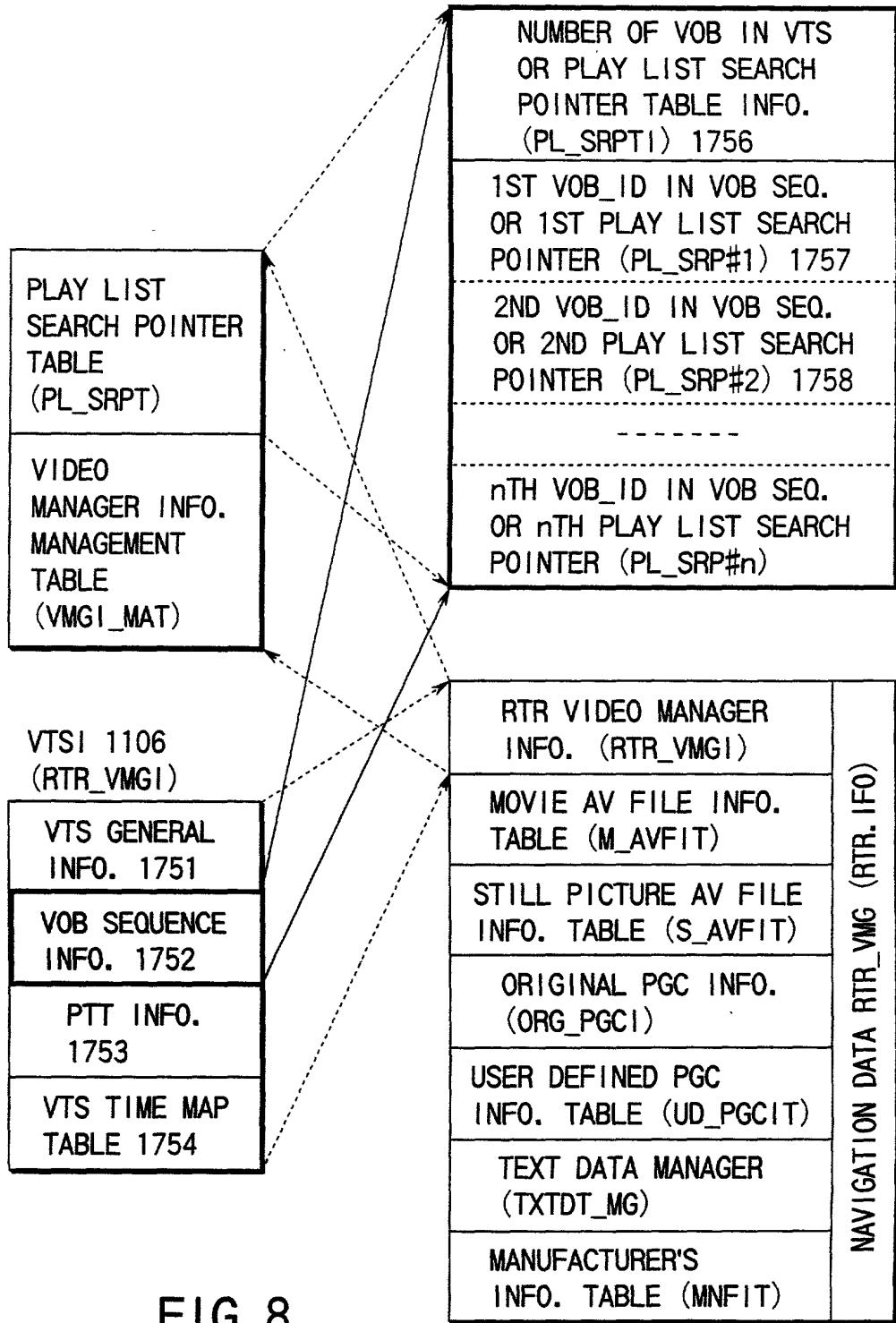


FIG. 8

FIG. 9A

AV FILE 1401

FIG. 9B

VTS (OR RTR_MOV. VRO) 1402

VOB#1 1461	VOB#2 1462	VOB#3 1763	UNRECORDED AREA 1460
EXTENT# α 1471	EXTENT# β 1472	EXTENT# γ 1473	EXTENT# δ 1474

FIG. 9C

FIG. 9D

AV FILE 1401

FIG. 9E

VTS (OR RTR_MOV. VRO/RTR_ST0. VRO/RTR_STA. VRO) 1402

M_VOB#		S_VOGI#		RTR_MOV. VRO				RTR_ST0. VRO				RTR_STA. VRO			
VOB#A 1771	VOB#B 1772	VOB#C 1773	VOB#D 1774	VOB#E 1775	VOB#F 1776	VOB#G 1777	VOB#H 1778	VOB#I 1779	PICTURE OBJECTS 1013	AUDIO OBJECTS 1014	AUDIO OBJECTS 1014	THUMBNAIL OBJECTS 1016			
VIDEO OBJECTS 1012	AUDIO OBJECTS 1014														

FIG. 9F

VOB FOR PICTURE OBJECTS (OR STILL PICTURE VOB GROUP RELATING TO S_VOGI#) 1631

FIG. 10B VOBU (FOR ONE STILL PICTURE) 1641

V_PCK 1661	V_PCK 1662	V_PCK 1663	SP_PCK 1681	A_PCK 1691	A_PCK 1692
I_PICTURE	1706	DUMMY DATA	SP_STREAM	A_STREAM	A_STREAM

VIDEO PART AUDIO PART

FIG. 10D VOB FOR PICTURE OBJECTS (OR STILL PICTURE VOB GROUP RELATING TO S YOGI#) 1632

FIG. 10E VOBU (ONE STILL PICT.) 1642 VOBU 1643 ----- VOB1 1641

V_PCK 1664	SP_PCK 1682	A_PCK 1693	V_PCK 1665	A_PCK 1694	V_PCK 1666	V_PCK 1667	A_PCK 1695
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V_PCK	SP_PCK	A_PCK	V_PCK	A_PCK	V_PCK	V_PCK	A_PCK
1664	1682	1693	1665	1694	1666	1667	1695

FIG. 10G VOB FOR PICTURE OBJECTS (OR STILL PICTURE VOB GROUP RELATING TO S_VOGI#) 1633

VOBU (ONE STILL PICTURE) 1645 VOBU 1646 VOBU 1647

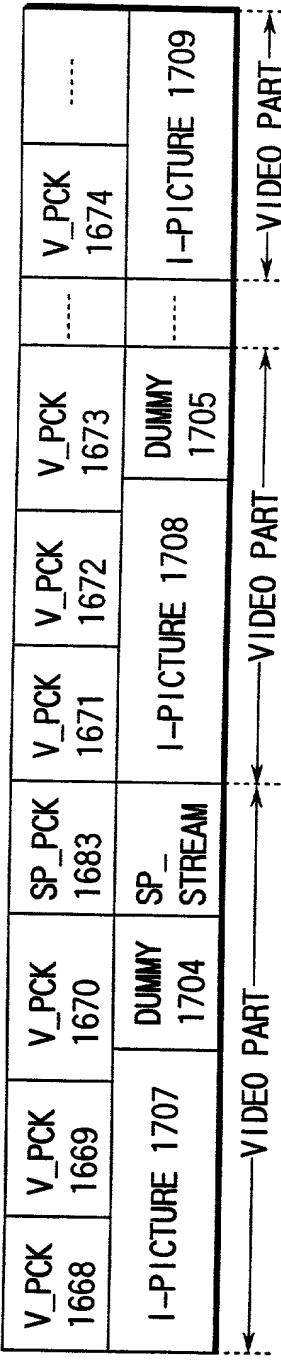


FIG. 10

FIG. 10J VOB FOR PICTURE OBJECTS (OR STILL PICTURE VOB GROUP RELATING TO S VOGI#) 1634

VOBU (ONE STILL PICTURE) 1648 VOBU 1649 ----- VOBU 1650

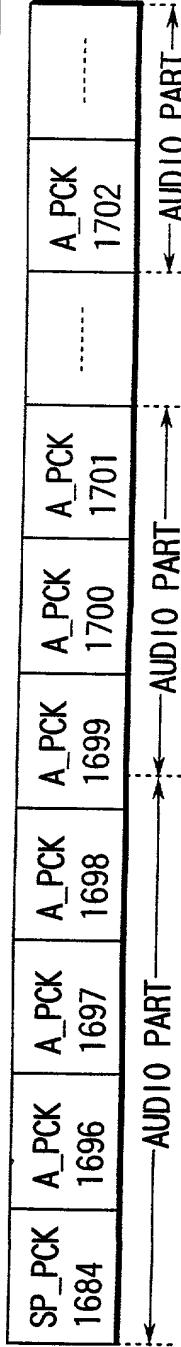


FIG. 10L

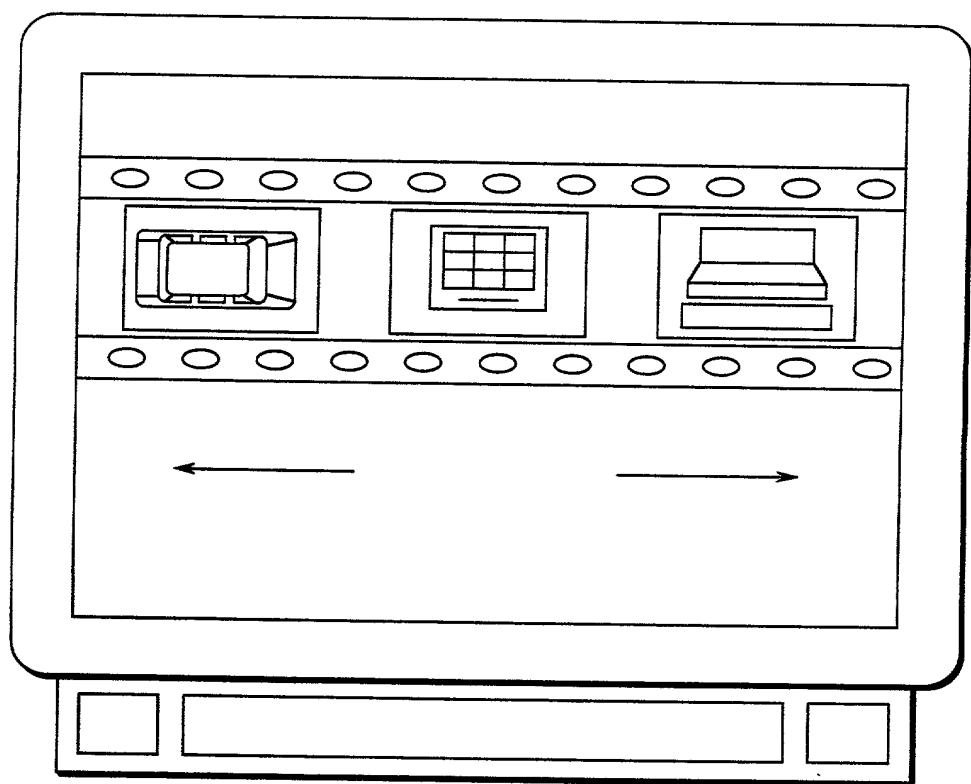


FIG. 11

STILL PICTURE
AV FILE
(S_AVFIT)

STILL PICTURE
AV FILE INFO.
TABLE INFO.
(S_AVFIT1)

STILL PICT. VOB
STREAM INFO. #1
(S_VOB_ST1#1)

STILL PICT. VOB
STREAM INFO. #n
(S_VOB_ST1#n)

STILL PICTURE
AV FILE INFO.
(S_AVFI)

STILL PICT. AD-
DITIONAL AUDIO
STREAM INFO. #1
(S_AA_ST1#1)

STILL PICT. AD-
DITIONAL AUDIO
STREAM INFO. #m
(S_AA_ST1#m)

STILL PICTURE
ADDITIONAL
AUDIO FILE INFO.
(S_AAF1)

VOB INFO. FOR
PICT. OBJECTS
MANAGEMENT
INFO. 1721
(OR S_AVFI_G1)

SEARCH POINTER
OF VOB INFO. FOR
PICT. OBJECTS
#1 1726 (OR
S_VOGI_SRP#1)

SEARCH POINTER
OF VOB INFO. FOR
PICT. OBJECTS
#i 1727 (OR
S_VOGI_SRP#i)

SEARCH POINTER
OF VOB INFO. FOR
PICT. OBJECTS
#k 1728 (OR
S_VOGI_SRP#k)

VOB INFO. FOR
PICT. OBJECTS
#1 1731
(OR S_VOGI#1)

VOB INFO. FOR
PICT. OBJECTS
#i 1732
(OR S_VOGI#i)

VOB INFO. FOR
PICT. OBJECTS
#k 1733
(OR S_VOGI#k)

VOB GENERAL
INFORMATION
FOR PICTURE
OBJECTS
1736 (OR
STILL PICTURE
VOB GROUP
GENERAL INFO.
S_VOG_G1)

VOB ATTRIB.
INFORMATION
FOR PICTURE
OBJECTS
1737

VOBU MAP FOR
PICTURE
OBJECTS
1738 (OR
STILL PICTURE
VOB ENTRES
S_VOB_ENT#)

FIG.12 #i=ANY ONE OF #1 TO #k

VOB ATTRIB. INFO. FOR PICT. OBJ. 1737	STILL PICT. ENTRY TYPE (S_VOB_ ENT_TY)	DATA SIZE OF STILL PICTURE (OR VOBU) INDICATED BY USED SECTORS 1806 (OR VIDEO PART SIZE V_PART_SZ/ AUDIO PART SIZE A_PART_SZ)
VOBU MAP FOR PICT. OBJ. 1738 (S_VOB_ ENT#)	NUMBER OF STILL PICT. (OR NUMBER OF VOBUs) IN CORRE- SPONDING VOB 1801 (OR S_VOB_Ns)	DISPLAY TIME OF ONE STILL PICTURE 1807 REPRESENTED BY PLAYBACK TIME OF AUDIO PART (IF VOBU CONTAINS A_PCK) OR REPRESENTED BY DISPLAY TIME OF VIDEO PART (IF VOBU CONTAINS NO A_PCK)
VOB GENERAL INFO. 1736 OR S_VOG_ GI	INFO. OF 1ST STILL PICT. IN CORRE- SPONDING VOB 1802	ADDRESS OF 1ST V_PCK IN VOBU 1808 (OR S_VOG_SA)
	INFO. OF 2ND STILL PICT. IN CORRE- SPONDING VOB 1803	SIZE OF I-PICTURE IN VOBU (INDICATED BY TOTAL BYTES) 1809
	INFO. OF 3RD STILL PICT. IN CORRE- SPONDING VOB 1804	PRESENTATION START TIME S_PTM OF STILL PICTURE (V_PCK/SP_PCK) 1810
	-----	1ST SYSTEM CLOCK REFERENCE F_SCR OF STILL. PICTURE (V_PCK/SP_PCK) 1811
		ADDRESS OF 1ST A_PCK IN VOBU 1812
		AUDIO S_PTM (PRESENTATION START TIME OF A_PCK) 1813
		AUDIO E_PTM (PRESENTATION END TIME OF A_PCK) 1814
		AUDIO F_SCR (SYSTEM CK REF. OF 1ST A_PCK IN VOBU) 1815
		AUDIO L_SCR (SYSTEM CK REF. OF LAST A_PCK IN VOBU) 1816

PLAYBACK TIME
OF AUDIO PART
A_PB_TM

FIG. 13

FIG. 14A

VOB #A 1821					
VOBU 1825					VOBU 1827
STILL PICT. NO. 1					STILL PICT. NO. h

FIG. 14B

VOB #A 1821					
VOBU 1826					VOBU 1827
STILL PICT. NO. 2					STILL PICT. NO. h

FIG. 14C

CONTENTS SPECIFIED → BY CELL					
STLPCT 1831	AUDIO 1841	STLPCT 1832	AUDIO 1842	STLPCT 1833	AUDIO 1843
V_PCK 1851	A_PCK 1861	V_PCK 1852	SP_PCK 1848	A_PCK 1862	V_PCK 1853

FIG. 14C

1ST STILL PICT. IN CELL					
V_PCK 1852	SP_PCK 1848	A_PCK 1865	V_PCK 1853	V_PCK 1854	LAST STILL PICT. IN CELL
V_PCK 1852	SP_PCK 1848	A_PCK 1865	V_PCK 1853	V_PCK 1854	A_PCK 1866

FIG. 14D

CONTENTS SPECIFIED → BY CELL					
A_PCK 1864	V_PCK 1855	A_PCK 1865	V_PCK 1856	V_PCK 1857	A_PCK 1866
AUDIO 1844	STLPCT 1835	AUDIO 1845	STLPCT 1836	STLPCT 1837	AUDIO 1846

FIG. 14E

STILL PICTURE NO. j					
VOBU 1828	VOBU 1829				
VOBU 1828	VOBU 1829				

FIG. 14F

VOB #B 1822					
...

FIG. 14G

CONTENTS (S_CI) OF CELL PLAYBACK INFO. (CI) FOR PICTURE OBJECTS 1870	EXAMPLE 1871 WITH RESPECT TO FIG. 14	EXAMPLE 1872 WITH RESPECT TO FIG. 14
CELL ID (CI_SR_P) 1873	_____	_____
TYPE INFORMATION OF CELL (C_TY) 1880	_____	_____
ID INFORMATION OF VOB WITH V_PCK 1874	VOB #A	1821
STILL PICT. NUMBER 1875 IN VOB INCLUDING V_PCK OF 1ST STILL PICTURE IN CELL (S_S_VOB_ENTN)	2	1826
STILL PICT. NUMBER 1876 IN VOB INCLUDING V_PCK OF LAST STILL PICTURE IN CELL (E_S_VOB_ENTN)	h	1827
ID INFORMATION OF VOB WITH A_PCK 1877	VOB #B	1822
STILL PICT. NUMBER 1878 IN VOB INCLUDING A_PCK OF 1ST STILL PICTURE IN CELL	j	1828
PRESENTATION TIME 1879 OF EACH STILL PICTURE HAVING NO CORRESPONDING A_PCK	2 SECONDS (ONE LINE)	_____

FIG. 15

CONTENTS OF CELL PLAYBACK INFO. (CI) FOR PTT
CELL ID (CI_SRP) 1883
TYPE INFO. OF CELL (C_TY) 1882
ID INFO. OF PTT WITH V_PCK 1884
STILL PICTURE NUMBER 1885 IN PTT OF VOB INCLUDING V_PCK OF 1ST STILL PICTURE IN CELL
STILL PICTURE NUMBER 1886 IN PTT OF VOB INCLUDING V_PCK OF LAST STILL PICTURE IN CELL
ID INFO. OF PTT WITH A_PCK 1887
STILL PICTURE NUMBER 1888 IN PTT OF VOB INCLUDING A_PCK OF 1ST STILL PICTURE IN CELL
PRESENTATION TIME 1889 OF EACH STILL PICT. HAVING NO CORRESPONDING A_PCK

FIG. 16

STILL PICTURE AV FILE INFO.
(S_AVFI) FOR PTT (CHAPTER)

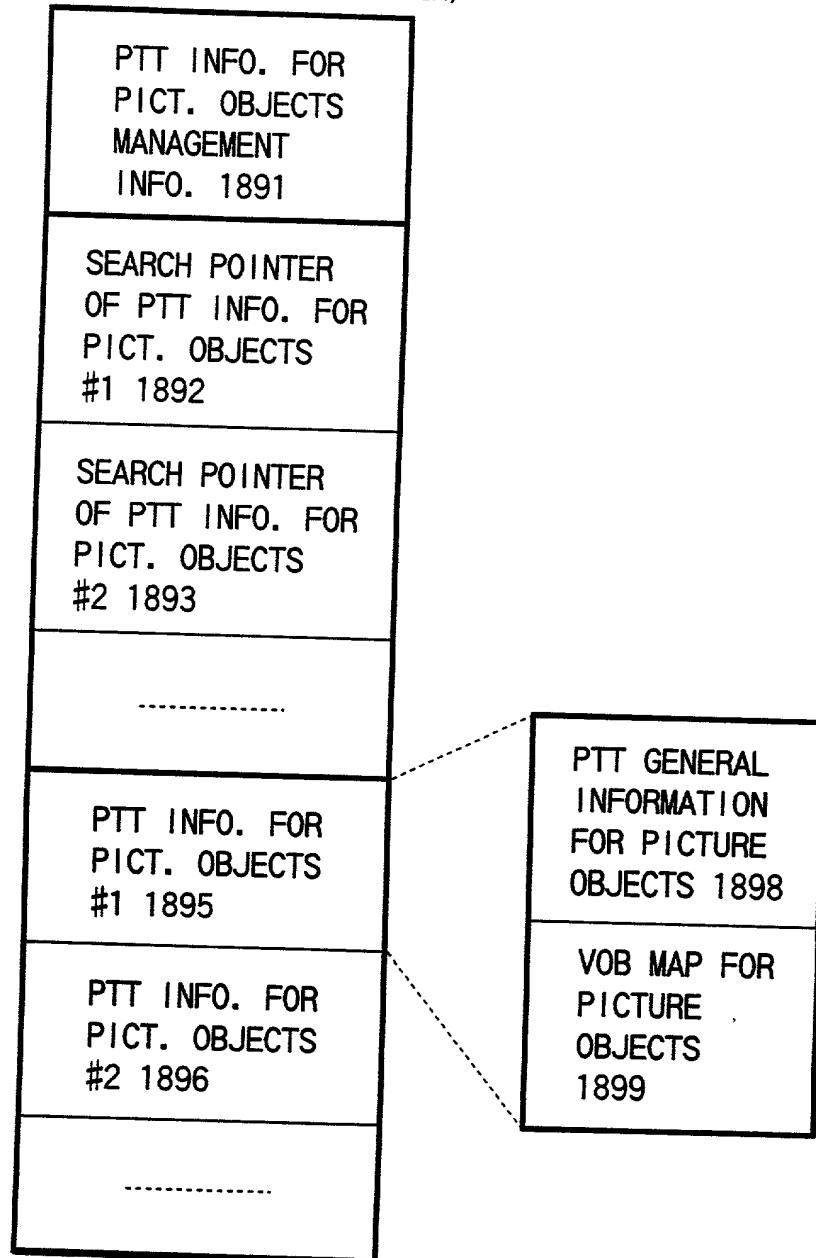


FIG. 17

VOB MAP FOR
PICT. OBJECTS
1899

NUMBER OF STILL PICT. (OR NUMBER OF VOBs) IN CORRESPONDING PTT 1901 (OR S_VOB_Ns)
INFO. OF 1ST STILL PICT. IN CORRESPONDING PTT 1902
INFO. OF 2ND STILL PICT. IN CORRESPONDING PTT 1903

FIG. 18

DATA SIZE OF STILL PICTURE (OR VOB) INDICATED BY USED SECTORS 1906
DISPLAY TIME OF ONE STILL PICTURE 1907 REPRESENTED BY PLAYBACK TIME OF AUDIO PART (IF VOB CONTAINS A_PCK) OR REPRESENTED BY DISPLAY TIME OF VIDEO PART (IF VOB CONTAINS NO A_PCK)
ADDRESS OF 1ST V_PCK IN VOB 1908 (OR S_VOG_SA)
SIZE OF I-PICTURE IN VOB (INDICATED BY TOTAL BYTES) 1909
PRESENTATION START TIME S_PTM OF STILL PICTURE (V_PCK/SP_PCK) 1910
1ST SYSTEM CLOCK REFERENCE F_SCR OF STILL. PICTURE (V_PCK/SP_PCK) 1911
ADDRESS OF 1ST A_PCK IN VOB 1912
AUDIO S_PTM (PRESENTATION START TIME OF A_PCK) 1913
AUDIO E_PTM (PRESENTATION END TIME OF A_PCK) 1914
AUDIO F_SCR (SYSTEM CK REF. OF 1ST A_PCK IN VOB) 1915
AUDIO L_SCR (SYSTEM CK REF. OF LAST A_PCK IN VOB) 1916

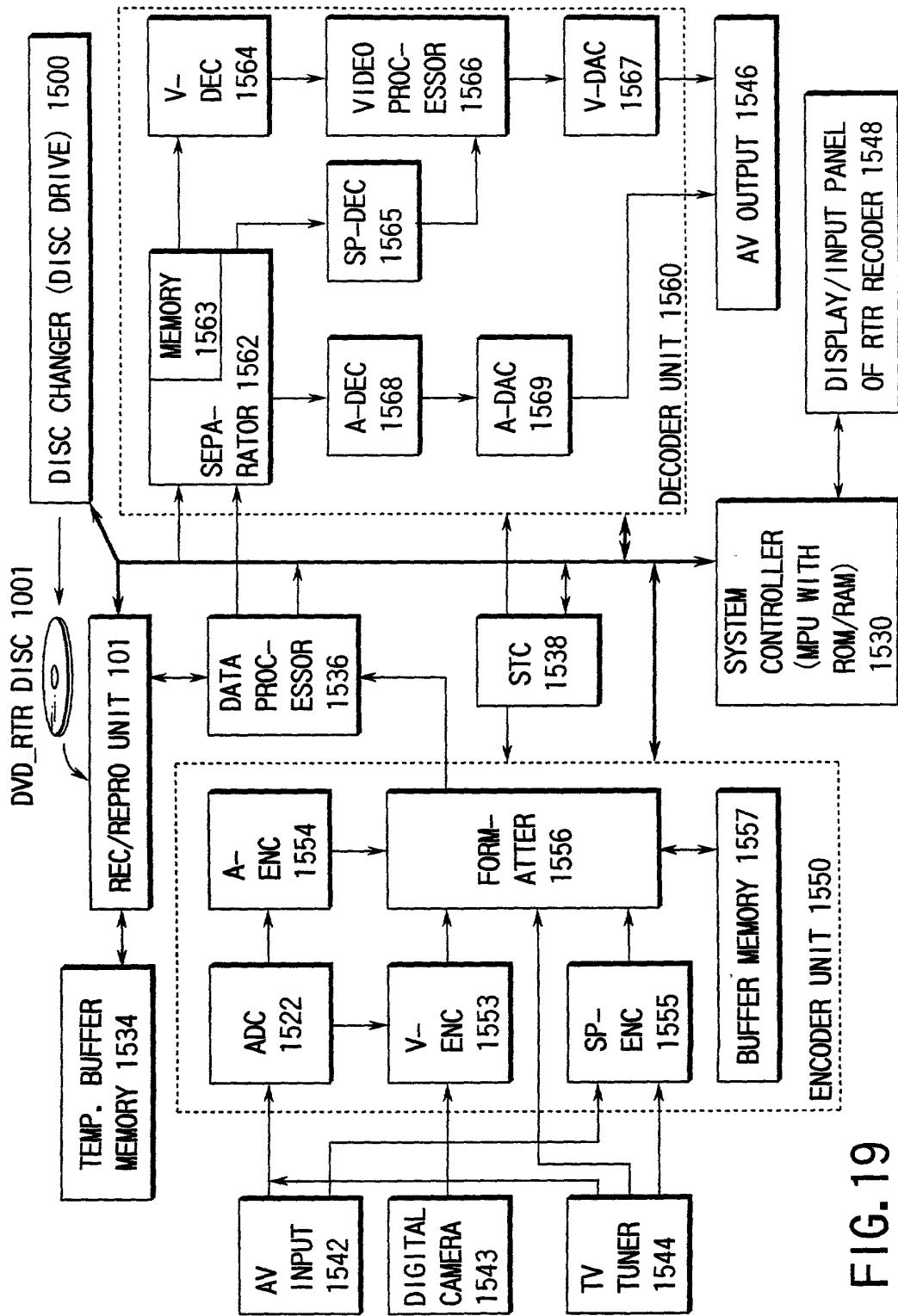


FIG. 19

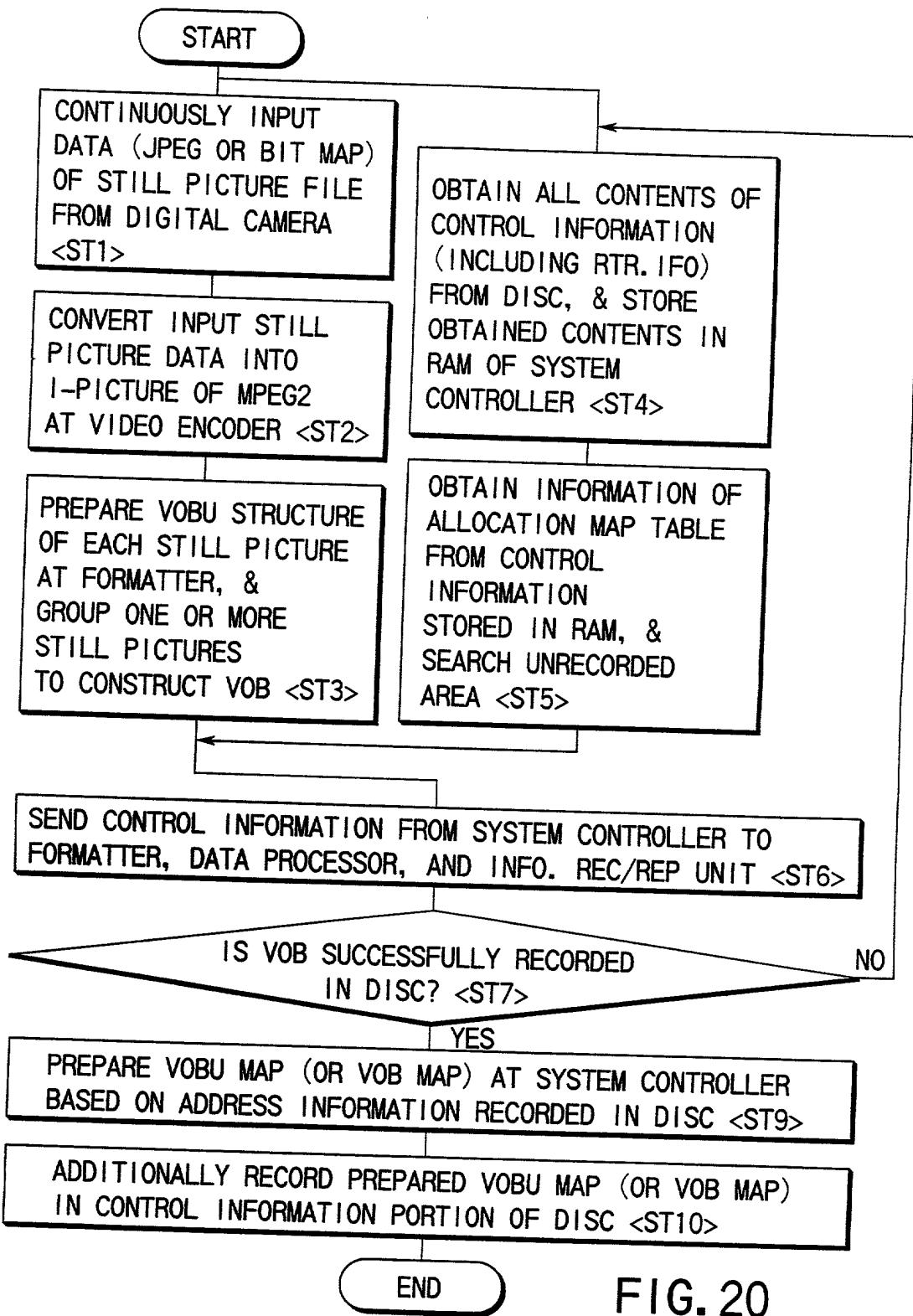


FIG. 20

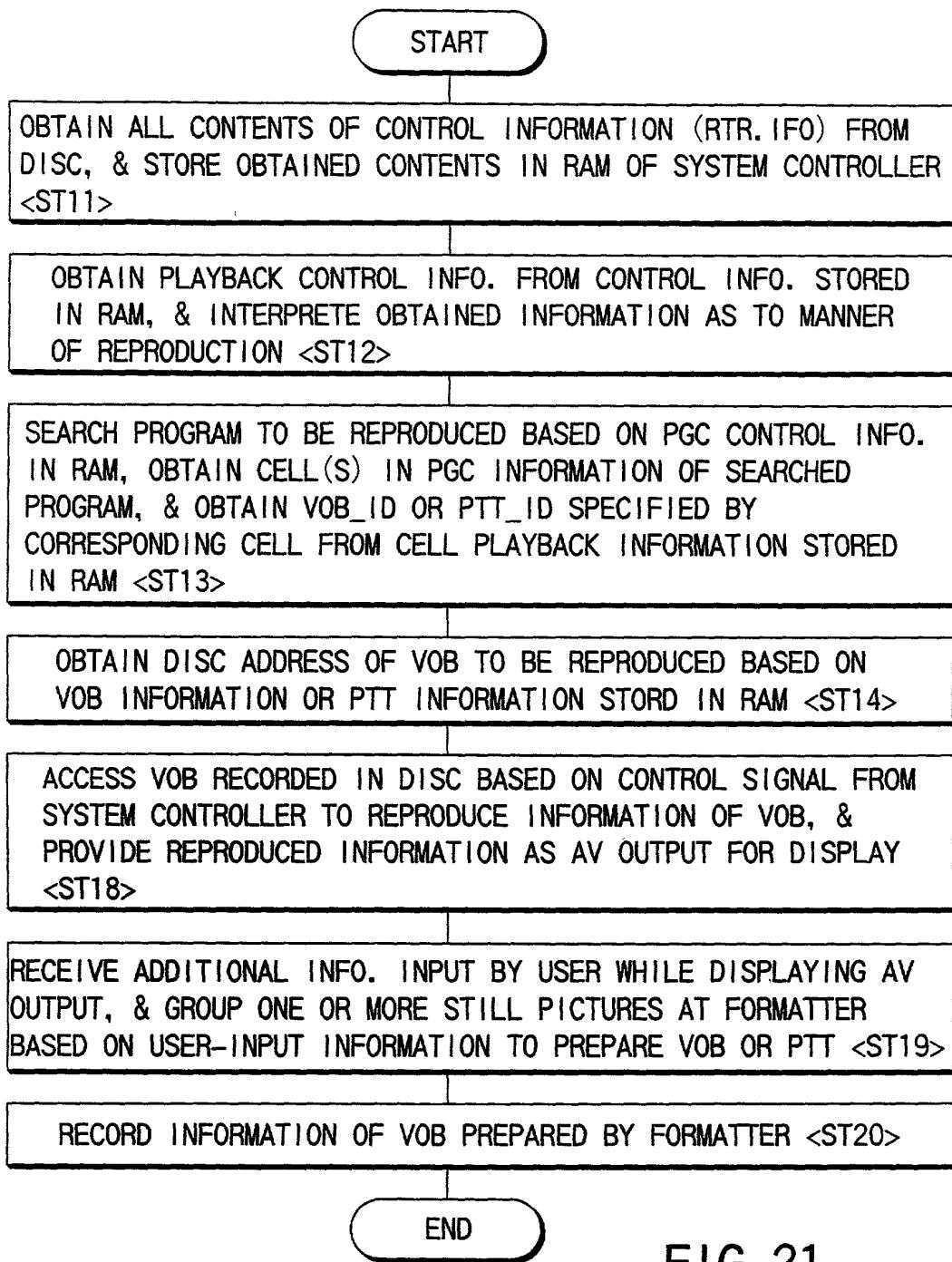


FIG. 21

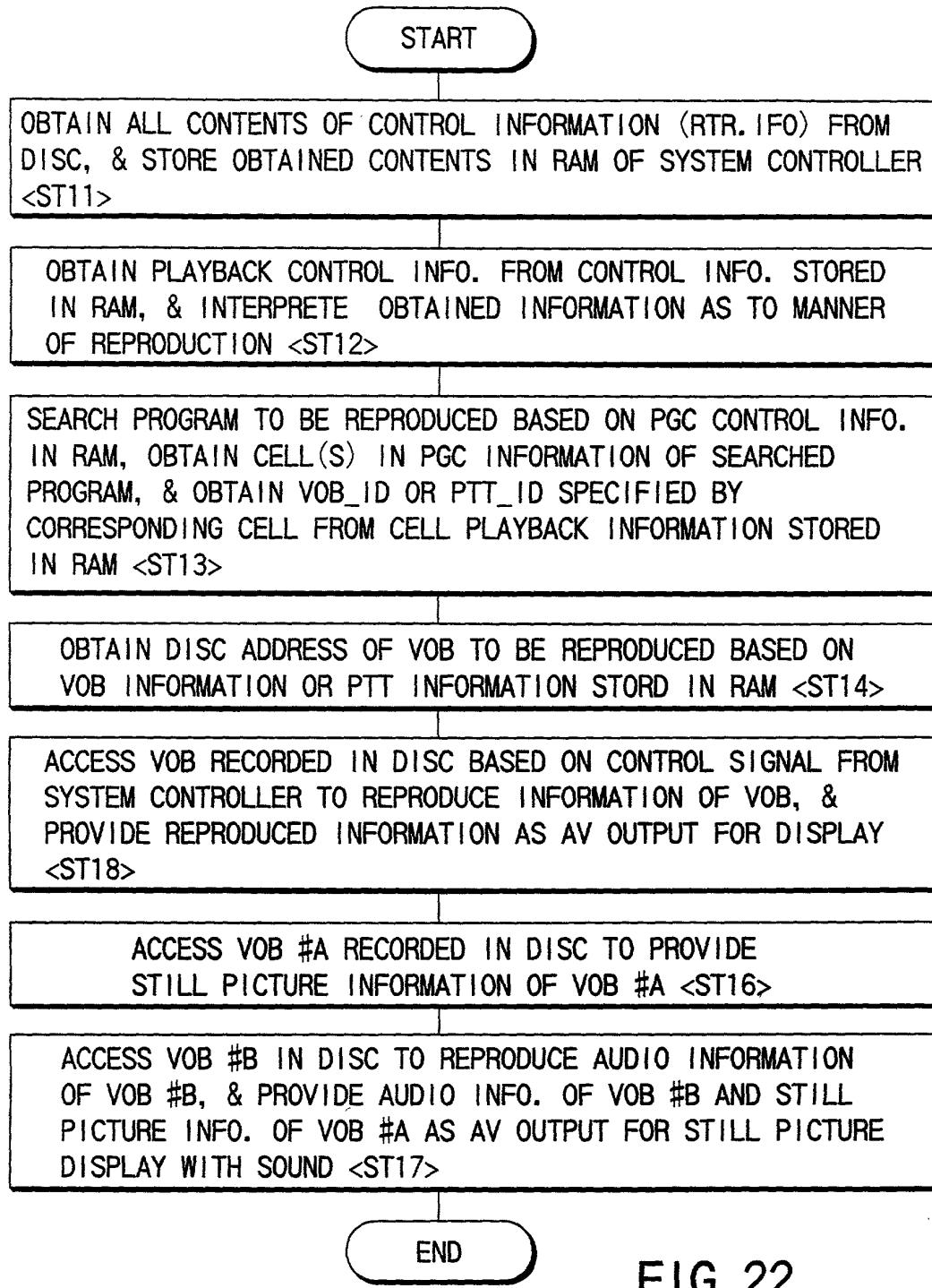


FIG. 22

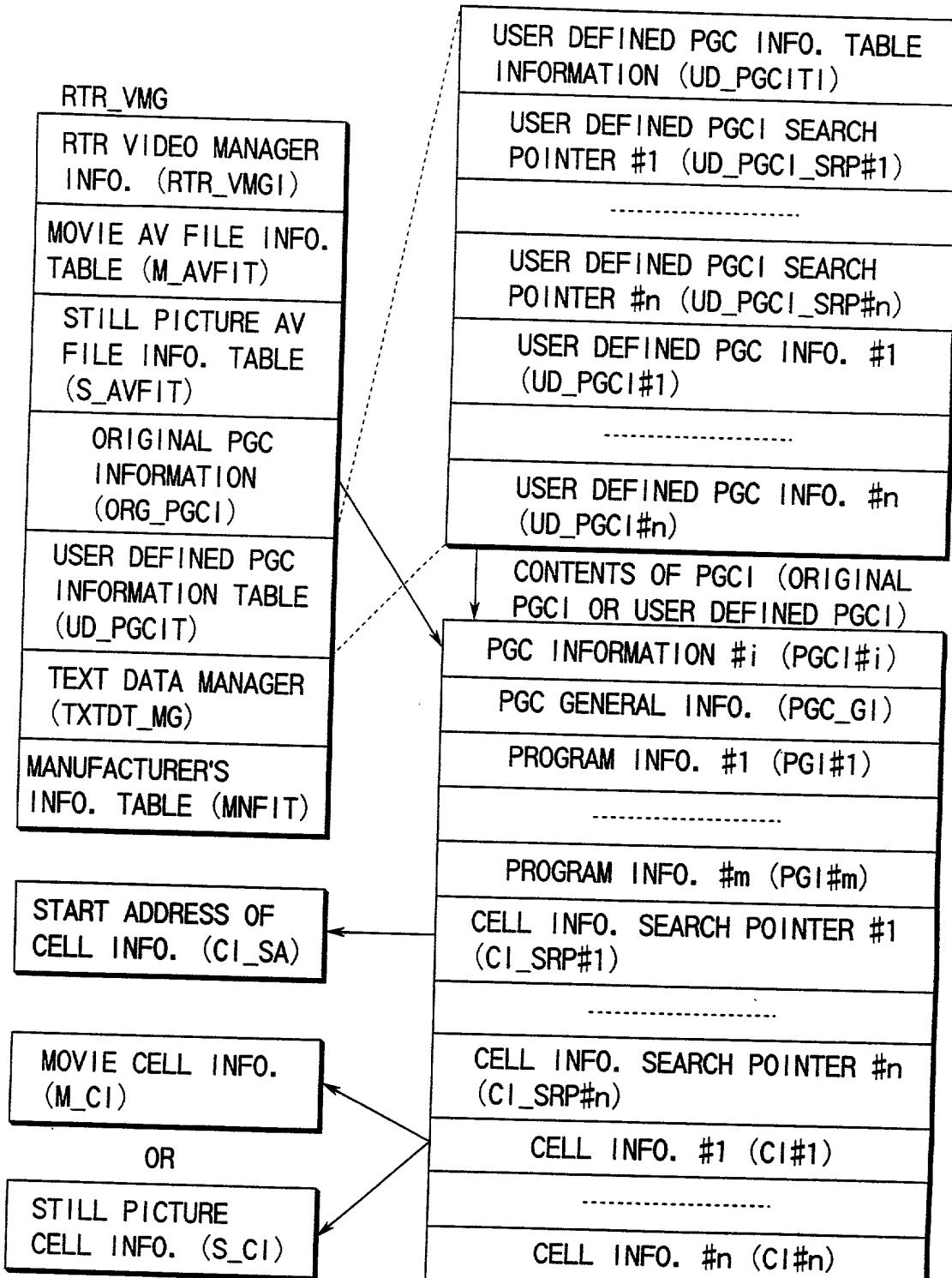


FIG. 23

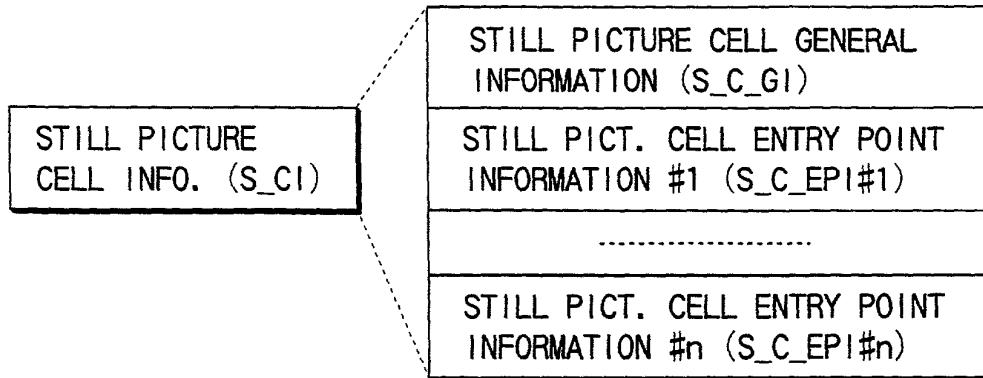


FIG. 24

CONTENTS OF S_C_GI

FIELD NAME	CONTENTS
RESERVED	RESERVED
C_TY	CELL TYPE
S_VOGI_SRPN	S_VOGI SEARCH POINTER NUMBER
C_EPI_Ns	NUMBER OF CELL ENTRY POINT INFO.
S_S_VOB_ENTN	START S_VOB_ENT NUMBER
E_S_VOB_ENTN	END S_VOB_ENT NUMBER

FIG. 25

CONTENTS OF S_C_EPI

FIELD NAME	CONTENTS
EP_TY	ENTRY POINT TYPE
S_VOB_ENTN	S_VOB_ENT NUMBER
PRM_TXTI	PRIMARY TEXT INFORMATION

FIG. 26

10007627.001-00000000

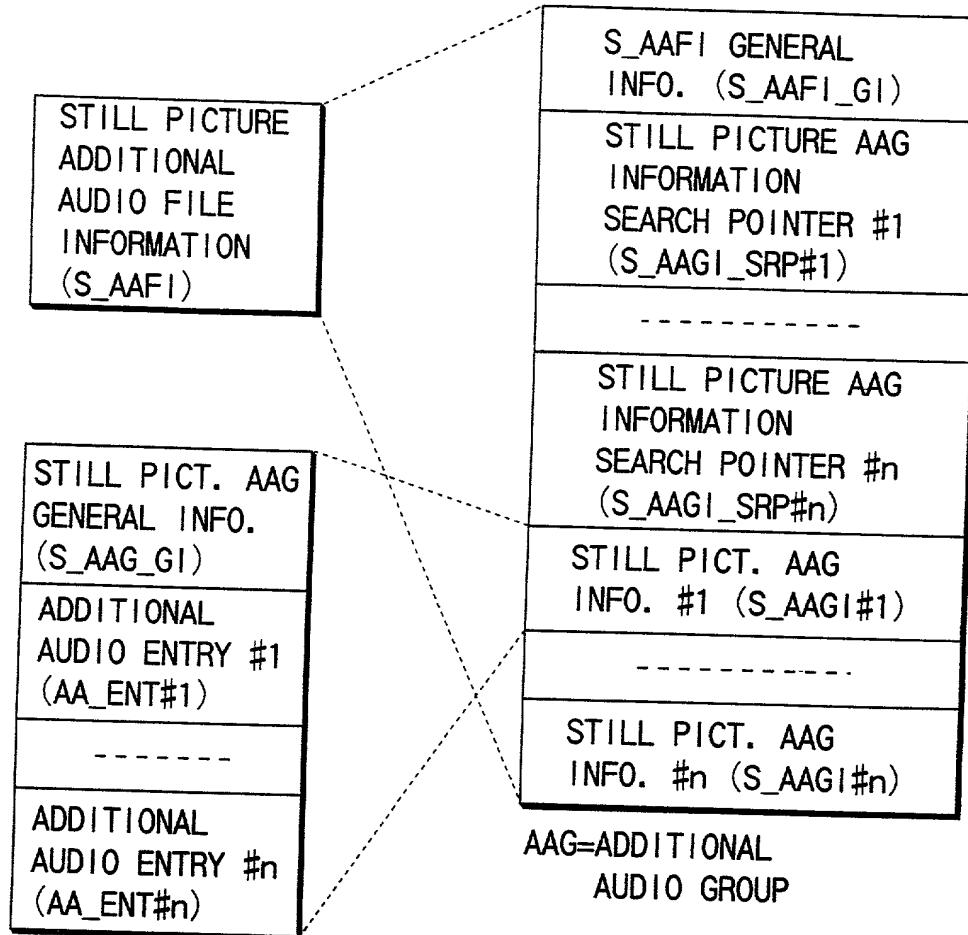


FIG. 27

CONTENTS OF S_AAG_G1

FIELD NAME	CONTENTS
AA_ENT_Ns	NUMBER OF AA_ENT
S_AA_STIN	STILL PICTURE ADDITIONAL AUDIO STREAM INFORMATION NUMBER
S_AAG_SA	START ADDRESS OF THIS AAG IN STILL PICTURE ADDITIONAL AUDIO FILE

FIG. 28

CONTENTS OF AA_ENT

FIELD NAME	CONTENTS
AA_TY	ADDITIONAL AUDIO TYPE
AA_SZ	SIZE OF ADDITIONAL AUDIO STREAM
AA_PB_TM	PLAYBACK TIME OF ADDITIONAL AUDIO STREAM (MEASURED BY VIDEO FIELDS)

FIG. 29

CONTENTS OF S_VOG_GI

FIELD NAME	CONTENTS
S_VOB_Ns	NUMBER OF S_VOBs
S_VOB_STIN	STILL PICTURE VOB STREAM INFORMATION NUMBER
FIRST_VOB_REC_TM	TIME WHEN THE FIRST VOB IN THIS VOB GROUP WAS RECORDED
LAST_VOB_REC_TM	TIME WHEN THE LAST VOB IN THIS VOB GROUP WAS RECORDED
S_VOG_SA	START ADDRESS OF THIS VOB GROUP IN STILL PICTURE AV FILE

FIG. 30

CONTENTS OF S_VOB_ENT (TYPE 1)

FIELD NAME	CONTENTS
S_VOB_ENT_TY	STILL PICTURE VOB ENTRY TYPE
V_PART_SZ	SIZE OF VIDEO PART

FIG. 31

CONTENTS OF S_VOB_ENT (TYPE 2)

FIELD NAME	CONTENTS
S_VOB_ENT_TY	STILL PICTURE VOB ENTRY TYPE
V_PART_SZ	SIZE OF VIDEO PART
A_PART_SZ	SIZE OF ORIGINAL AUDIO PART
A_PB_TM	PLAYBACK TIME OF AUDIO PART (DESCRIBED IN VIDEO FIELDS)

FIG. 32

CONTENTS OF S_VOB_ENT (TYPE 3)

FIELD NAME	CONTENTS
S_VOB_ENT_TY	STILL PICTURE VOB ENTRY TYPE
V_PART_SZ	SIZE OF VIDEO PART
S_AAGN	ADDITIONAL AUDIO GROUP NUMBER
AA_ENTN	AA_ENT NUMBER

FIG. 33

CONTENTS OF S_VOB_ENT (TYPE 4)

FIELD NAME	CONTENTS
S_VOB_ENT_TY	STILL PICTURE VOB ENTRY TYPE
V_PART_SZ	SIZE OF VIDEO PART
A_PART_SZ	SIZE OF ORIGINAL AUDIO PART
A_PB_TM	PLAYBACK TIME OF AUDIO PART
S_AAGN	ADDITIONAL AUDIO GROUP NUMBER
AA_ENTN	AA_ENT NUMBER

FIG. 34

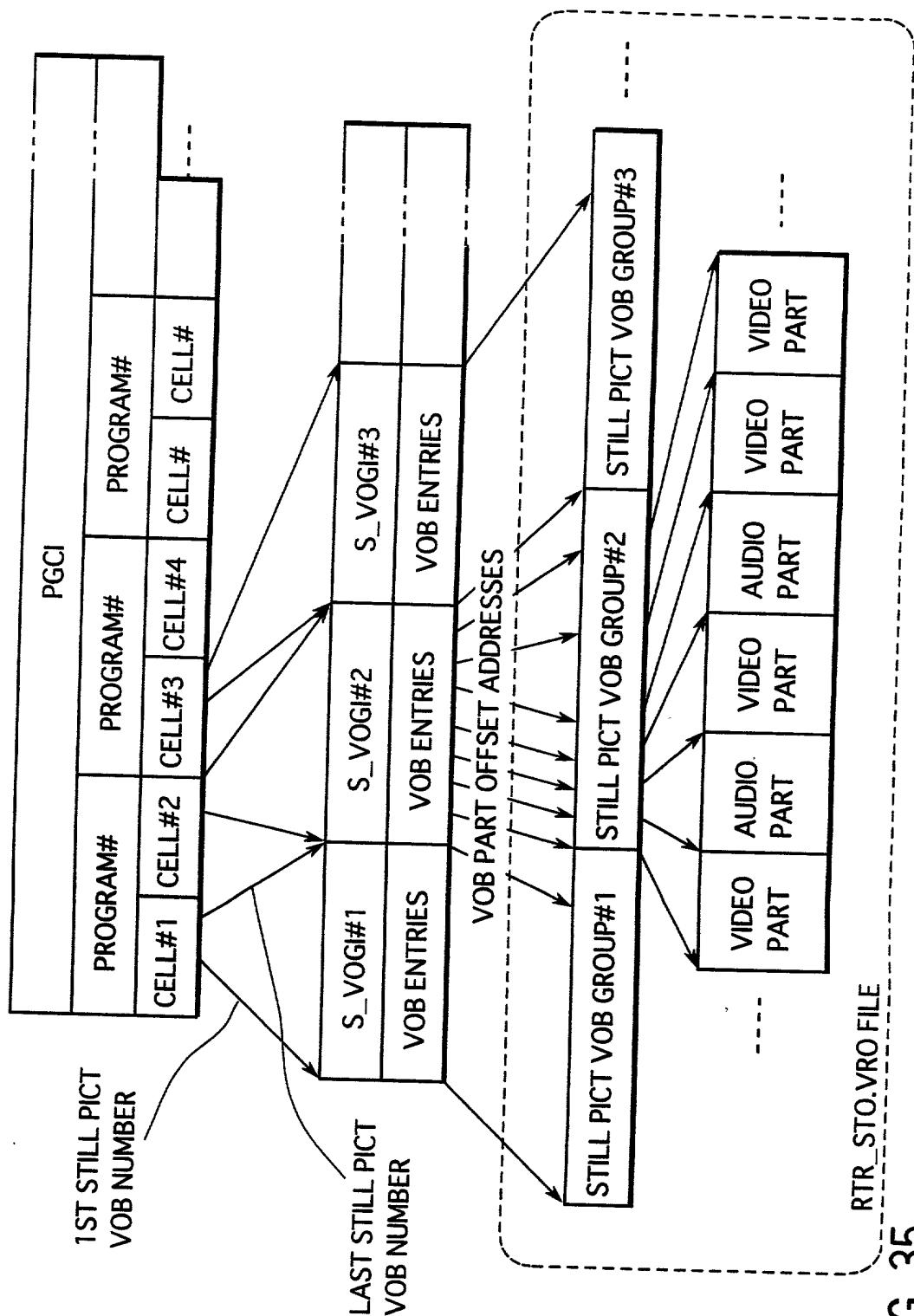


FIG. 35

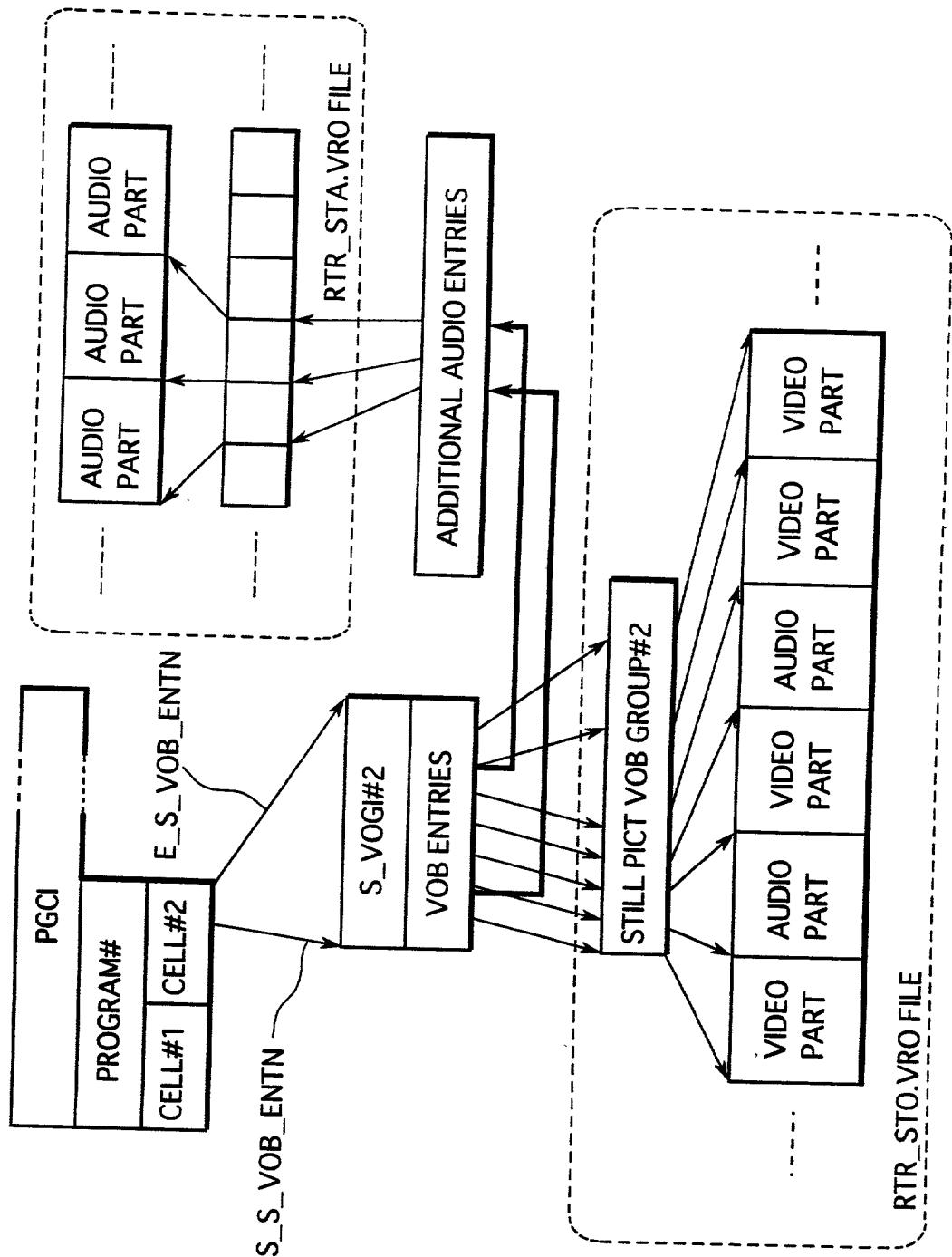


FIG. 36
RTR_ST0.VRO FILE

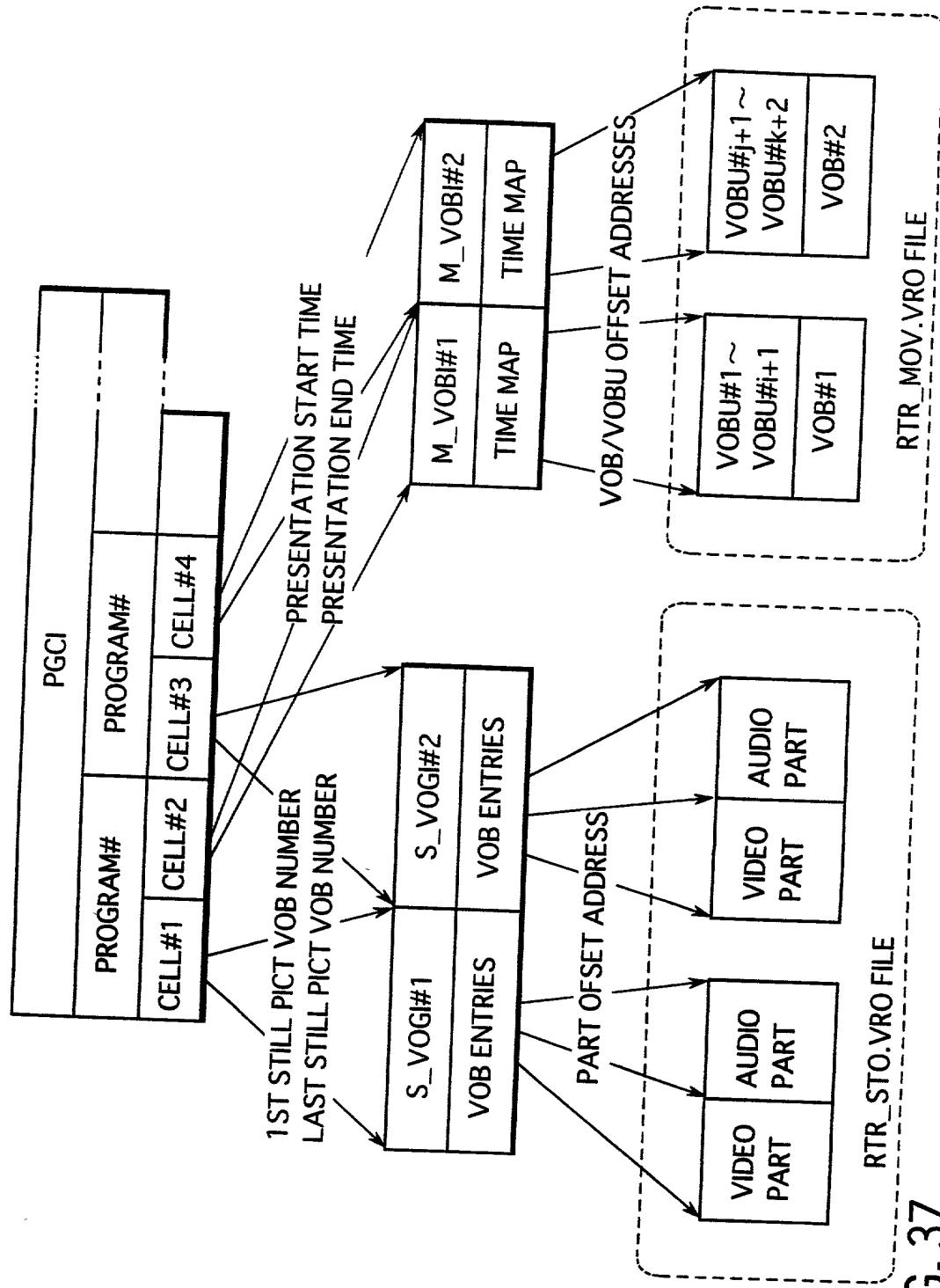


FIG. 37

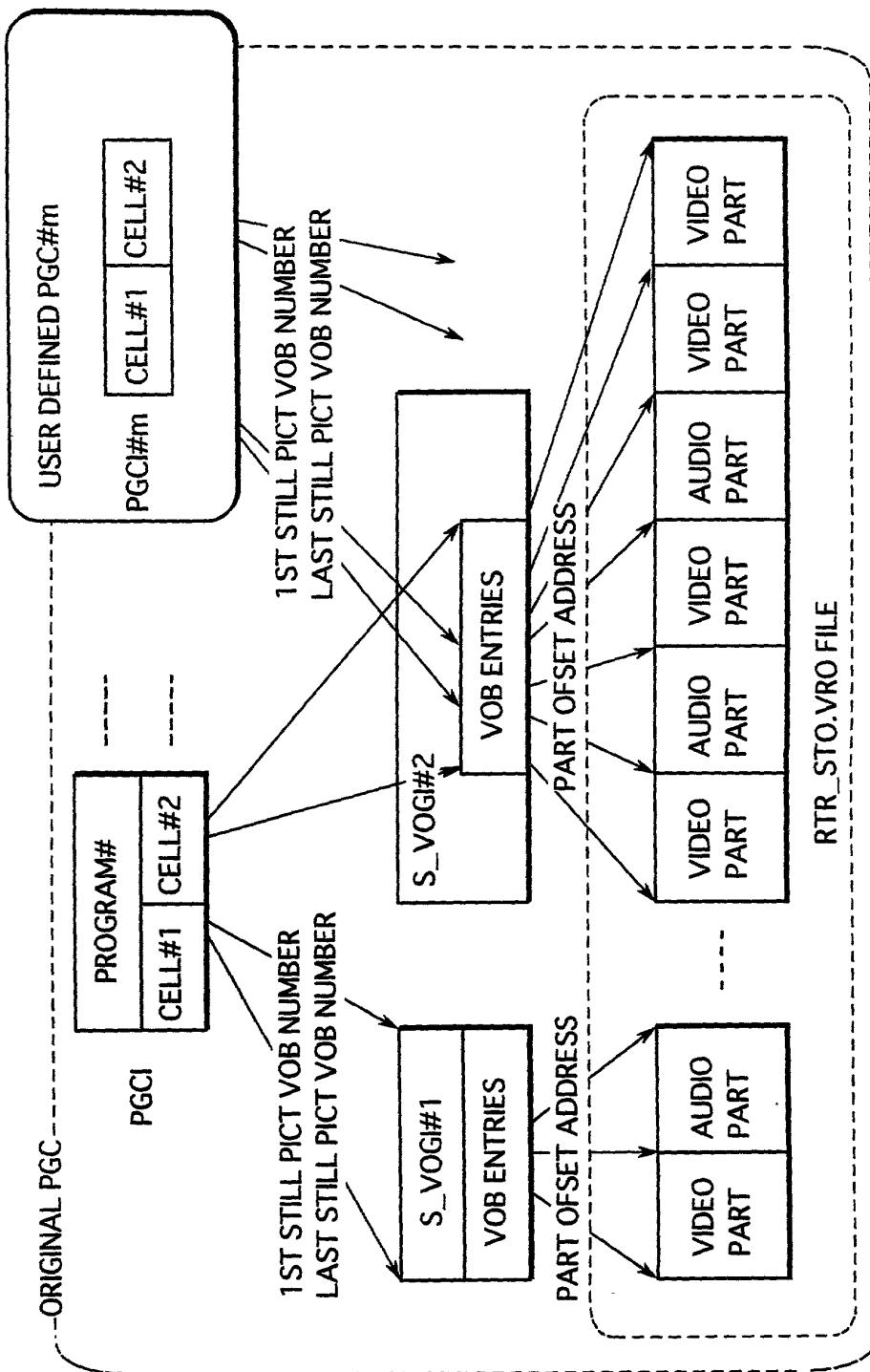


FIG. 38